

Idaho IBM-PC Users Group Newsletter

Vol 1 number 4

June 1985



ABOUT THE GROUP

The Ibm-Pc Users Group (IPUG) is a non profit organization. We meet on the second Tuesday of each month. Our next meeting will be at 7:00pm at Computer Concepts across from Julia Davis Park.

Our normal membership fee is fifteen dollars per year. If you own your own business or are in a managerial or financial decision making position at your present job, you should consider a corporate sponsorship of one hundred dollars or more. The money will go towards any educational tools needed during the presentations at our monthly meetings as well as maintaining our disk library and soon to be bulletin board. A five dollar discount will be given to employees of corporate sponsors. Since we are a non profit organization, we must rely on donations from the community.

WHERE TO WRITE

Idaho IBM PC Users Group
P.O. Box 9136
Boise, Idaho 83707

Questions concerning the group can be directed to any of the following people:

| | |
|-----------------------------|----------|
| President: Bruce Burns | 322-4533 |
| Librarian: Richard Chambers | 939-9120 |
| Treasurer: Tom McIntyre | 344-7194 |
| Editor: Bob Robles | 342-7250 |

NEW TREASURER

At our last meeting Tom McIntyre was voted in as our new treasurer. He has the financial savvy it takes to keep this group in the black, in spite of ourselves. Tom is a local business man who has been using for a few years. He is taking over for Bob Flagg. (remember Bob??)

KRM

South Shore Village

Left

553 E Pennsylvania Dr

NEXT MEETING

Date : Tuesday, June 11

Time : 7:00pm

Place: Computer Concepts
: 615 South Capital Blvd
: across from Julia Davis Park.

TOPICS AT OUR NEXT MEETING

At this next meeting, we will be having a demonstration on how to use a Bulletin Board Service for downloading and uploading programs. Don't miss it as we will also have the latest copy of PC-TALKB available for you to copy and with NO copying charge, although you have to bring your own diskettes.

The nice folks at Bourbaki Inc. will be there to give us a demonstration of the 1Dir program (pronounced wonder). 1Dir is a DOS shell program that is a must for hard disk users and a valuable tool for floppy users.

We would like to thank Computer Concepts and Tim Mead for offering us the use of their building for this meeting.



<DISCOUNTS>

The following people are offering discounts to any registered members.

Greg Penn (CompuShop). CompuShop is extending a 10% discount off the normal CompuShop retail price on all stock to registered IPUG members.

Bruce Burns (R&L Data) is personally extending a 15% discount off everything in the store, except the AT line, to all registered members. note: you must deal directly with Bruce.

LOCAL BBS PHONE LIST

The following is a list of some local BBS's. They are not all IBM computers running them, though Gem State Data Access is.

| | |
|------------------------|----------|
| Gem State Data Access | 375-2243 |
| B.E.B.B.S. (Nampa) | 466-4769 |
| Motherlode BBS | 322-6200 |
| Free Spirit BBS | 362-3623 |
| C.C.U.B.B. (Caldwell) | 454-8421 |
| C-64 BUG BBS (6pm-6am) | 362-3468 |

If you need any help using a BBS, be sure to attend our next meeting as we will be having a demonstration on how to upload and download programs.

TECHNICAL WRITERS

Written by Richard Chambers

We now have these writers contributing informational columns for our newsletter.

1. Mark McNee, Programmer/Technician at Computerland will be trying to demystify the commands of IBM/MS DOS for us. This month, he attacks one of the often neglected, but important commands: *BACKUP*.

2. Mike Hayhurst, a highly knowledgeable programming professional from MK, is writing a column on PC-Communications. Mike will address communications subjects such as modem use, bulletin boards, and micro-to-mainframe applications. In addition, he will answer communications questions from our members.

3. Rich Brown, also from MK, will try and keep us abreast of software and hardware trends as they apply to the PC user. He will also be happy to answer questions about the software and hardware units featured in his reviews.

TECHNICAL WRITERS (cont...)

4. Judy Robinett, A computer hobbyist from the statehouse will soon begin a monthly column on dBASE II. The Column will be directed at the new, or casual user of dBase II, and will consist of short dBase II routines which you may type in and use. Judy will be happy to answer general-use questions pertaining to dBase II and it's application.

We are very fortunate to have these folks donating their expertise to our PC group. Projects such as these take a considerable amount of time and effort, and each of them deserve our gratitude. Lets try and give them the same support they are giving us.

QUICK BASIC TIPS

Written by Bob Robles

If you want to determine the number of records in a random file, you can use the statement:

```
INT(LOF(1)/REC.LEN)
```

where INT is the basic function to return integer portion of a number, LOF(1) is the basic function to return the length of the file opened on channel #1, in bytes, and REC.LEN is the length of the fixed length records in the random file in bytes. If you always use this formula to determine the number of records in a random file, you can write your programs so that they dynamically build random files. This will only work with DOS 2.x or greater.

```
10 REC.LEN=20
20 OPEN "TESTFILE" AS #1 LEN=REC.LEN
30 FIELD #1, 20 AS TEST.NAME$
40 INPUT "ENTER NAME TO ADD ",R$
50 LSET TEST.NAME$ = R$
60 PUT #1,INT(LOF(1)/REC.LEN) +1
```

This example adds a record to the end of the file TESTFILE.

THE LIBRARY CARD

THE DISKS ARE IN

The shipment of Nasua diskettes is in. If you haven't received your order already, give me a call or you can pick them up at the next meeting. This last shipment will be sold at \$1.30 each. They are DS/DD 5-1/4" and certified 100% error free. Our last order was for 250 diskettes. We over-ordered by 60, figuring that we would have plenty left over, however, because we sold ALL of them, (even the ones for our own library), we will be placing another order after our next meeting. Remember, if one of our disks ever goes bad during normal use, the club will give you a new disk in exchange for the defective one. These are quality diskettes and we don't foresee any returns.

NOTES

As promised, we are starting a periodical magazine library as well as a software library. At present, we have nearly one year's worth of BYTE, six issues of CREATIVE COMPUTING, five issues of PC, and other assorted periodicals. Most of these contributions were from members Allen Powell and Steve Solomon. In addition, I am donating my subscription to PC Magazine, (after I have read them, of course). I'll have an index of the publications in our library as soon as I can find the time... So now we are soliciting periodicals. If you have some of them laying around the homestead and your spouse has been laying on the pressure for you to "get rid of those darned things," perhaps you might donate them to our library.

NOTES (cont...)

Much thanks to Bob Roark, Lotus 123 spreadsheet Guru, for donating a copy of PC-DIAL to our library. And while we are giving out the thanks, a tip of the User Group hat is in order for Judy Robinett. She is a new member, but has already become active in group affairs. Through some of her acquaintances in the industry, she has arranged for a software swap. We are trading for public domain and freeware items presently not in our library and for those we have which we know are not functional. What this means is, SOON, I will have a new library catalog available to our members. Those who have already purchased a catalog will get the new upgrade free, however new purchasers will have to "cough up" about \$1.00 to defray our costs of materials. I'll try to make the new catalog a bit less cryptic. Your patience in this matter will be greatly appreciated.

We would sure like to get some more feedback from those of you who have used our Library. We need to know what's good and what's not worth keeping in the library. I would like to begin weeding out those programs which are not in demand by our members and make room for new, and more sophisticated software. When time allows, we will reclassify our programs and try to place them in sections, thus making them easier for persons seeking a particular type of program to find. A group bulletin board is just over the horizon, and when we get it up and running, we will feature our most requested software on it.

Richard Chambers, Librarian
939-9120

BIG BLUE'S PC-AT (continued..)

of parity-checked memory. More memory is available up to 3 Megabytes, but at present only 640K of total memory is user-addressable under the present operating system. This problem should be remedied soon by the introduction of memory expansion cards that support the concept of "bank switching" which allow the 80286 microprocessor to scan the expanded memory through a 64K "window" located in memory "above" the 640K limit assigned by PC-DOS.

Eight full length expansion slots equipped with 62-pin connectors now reside on the system board of the AT. Six of these slots have an additional 36-pin connector to match up with AT-specific cards. A few pieces of the original PC and PC-XT hardware cannot be used with the PC-AT. A brief listing follows:

- The IBM Asynchronous Communications Adapter
- The IBM Parallel Printer Adapter
- The IBM Expansion Unit
- The IBM Compact Printer

As may be expected, the PC-AT must use a new version of PC-DOS, the proprietary operating system written by Microsoft and particular to the IBM PC line. The latest version is Version 3.0 and is intended to provide the internal changes from Version 2.1 that are necessary for DOS to execute on the PC-AT. In addition, Version 3.0 fixes some minor "bugs" resident in Version 2.1 and adds some new commands; but more importantly, DOS 3.0 sets the standard for software development to support file sharing facilities in the promised IBM local area network that should be available as soon as Version 3.1 is readily available.

The PC-AT has experienced delays in availability due to problems with unexplained loss of data resident on its 20 Megabyte hard disk drive. Whose responsibility these problems are has yet to be made crystal clear to the prospective buyer. IBM refuses to accept blame, pointing the finger of guilt initially at Computer Memories, makers of the 20 Megabyte drive. Computer Memories, in turn denying problems with their product, has pointed to Microsoft, stating the problems lie with DOS itself. Whoever is to blame for the lack of availability seems moot at this point as IBM has recently announced that the AT shortage will end in July of this year, with dealers receiving larger monthly allocations as a result of larger supplies of hard disk drives becoming available.

In spite of the delays in shipment and the controversy surrounding the problems with the hard disk drive, the PC-AT seems to now be established as the flagship of the IBM Personal Computer line. As testimony to this, makers of PC "clones" such as COMPAQ, KAYPRO, TELEVIDEO, ITT, ZENITH, and AT&T recently announced new PC models based on the 80286 microprocessor and its corresponding architecture. IBM, it appears, seems to have once again set the standard for Personal Computer development in the marketplace that others must follow in order to compete.

Editors note: You can receive a 10% discount on the AT line at CompuShop.

BIG BLUE'S PC-AT

Written by Rich Brown

It's probably no secret by now to readers of this newsletter that IBM is touting the PC-AT as the top product in their Personal Computer lineup. Since its introduction last Fall, the PC-AT (AT standing for "Advanced technology") has been surrounded by admiration as well as controversy due to the nature of its design and subsequent delivery delays stemming from alleged problems with its 20 Megabyte hard disk drive. This article, while brief in scope, will attempt to provide the reader with a definition of the more prominent features of the PC-AT.

IBM chose to produce this model in two basic configurations. The base model (priced at \$3995.00) is furnished with 256K of RAM (random access memory), a high-capacity 1.2 Megabyte floppy disk drive, and a floppy/hard disk controller card. For those high-tech junkies flaunting fat wallets and more expensive tastes, an enhanced model is also available (at \$5795.00) that adds another 256K of RAM (for a total of 512K), a 20 Megabyte hard disk drive, and a serial/parallel adapter card. As usual, IBM has included the standard Guide to Operations and BASIC Reference manuals in looseleaf format.

Because the power requirements for this model are high, IBM has seen fit to boost the AT's power supply to 190 watts greater than that used by the old standby, the "plain-vanilla" PC. As an answer to the wishes of many PC and PC-XT users, IBM adopted many changes to the keyboard of the PC-AT. This keyboard, similar to the IBM Selectric typewriter's keyboard, now

has enlarged versions of the SHIFT, CONTROL, ENTER, and BACKSPACE keys. Keys used infrequently, i.e., the ESCAPE, PRINTSCREEN, BACKSLASH, have been moved to the keyboard perimeter. In addition, three new status lights have been added to the CAPS LOCK, SCROLL LOCK, and NUM LOCK keys. Another new feature not found on previous PC models is the addition of a key locking device that disables the keyboard and at the same time locks the System Unit cover in place. This feature acts to discourage unwanted use and prevents casual tampering.

IBM has completely redesigned the system board for the PC-AT. In place of the Intel 8088 microprocessor used as standard equipment on the earlier models, IBM has socketed a faster (6 MHz clock speed) Intel 80286 chip. While this chip is notably quicker than the 4.77 MHz chip used in the PC and PC-XT, the big plus for the PC-AT is that a 16-bit data bus is now used rather than the 8-bit bus installed in the earlier models. This increase in speed (two to three times that of its earlier cousins) seems to be most noticeable when running computation intensive programs such as linear regression models. Also provided is an empty socket for the addition of an 80287 Math Co-Processor chip to further speed numeric computations. An internal, battery operated clock/calendar is now standard on the AT to eliminate the often tedious routine of having to enter responses to "date" and "time" prompts under other versions of DOS.

As mentioned earlier, the system board can support up to 512K

DOS BACKUP COMMAND

Written by Mark McNee
Computerland

What is the DOS BACKUP command and what is it for? The DOS BACKUP command is used to make a backup copy of data and/or programs from a harddisk drive to floppies. The backup disks are kept for such emergencies as harddisk failures, somebody formatted the harddisk by mistake, or deleted files that were to be kept. These emergencies happen when you least expect them, so you must have backed up your system prior to the disaster if you wish to save yourself time, money, headaches, and a touch of insanity. The files on the backups you make cannot be used as regular files, and can only be accessed by the RESTORE command (which restores data and/or programs from your backup floppies to the harddisk).

The DOS Backup command, when seen in the manual, looks like this:

```
[d:][path]BACKUP d:[path][filename  
[.ext]] d:[/S][/M][/A][/D:MM-DD-YY]
```

Deciphering the manual can be quite a chore, but let's make it easier. The BACKUP command is in reality, an external command of DOS. All this means, is that the command is a program file found on your DOS disk. Most of you with harddisk's have DOS in a separate subdirectory that is searched due to DOS's PATH command, so you can type 'backup ---' any place on your harddisk. If you do not have a PATH set, then you must specify the path to find the backup program file. For example, at the C>, type:

```
C:\DOS\BACKUP C:\*.* A: /S
```

This command executes the program file BACKUP from the DOS subdirectory, backing up everything

----- BACKUP (cont..)

in the root directory to the floppy in drive A:. The /S option tells the BACKUP program to backup all sub directories too, effectively backing up the entire harddisk. The BACKUP command can then be looked at as:

```
BACKUP [from] [to] [/options]
```

The [from] part of the BACKUP command lets you specify the sub-directory and the files you wish to backup. Global characters are allowed, giving flexibility to the command. Further flexibility is gained through the use of the [/options]. The /S option was seen to backup all subdirectories from the specified directory (or current default). The /M option backs up all files that have been MODIFIED since the last backup. The /A option appends the selected files to the last backup disk of a previous backup operation. The /D option causes the backup to consist of those files modified since the specified date (here the importance of entering date and time at system startup becomes apparent).

Now let us look at a few examples:

```
BACKUP C:\*.* A: /S
```

backs up the entire harddisk to floppies in A: (USE THIS WHENEVER IN DOUBT)

BACKUP (Cont...)

BACKUP C:\lotus\data*.wks A:
backs up only lotus worksheet
files found in the \lotus\data sub-
directory.

BACKUP C:*.WKS A: /S

backs up all files ending in
and looking in all subdirectories.

BACKUP C:*.* A: /S/M

backs up the files that have been
modified since the last backup, in
the root directories and all sub-
directories. (If you use this, make
sure you keep a complete backup and
separate sets for each /M back-
up that you do.)

BACKUP C:\DB A:

backs up the \DB subdirectory only.

BACKUP C:\DB A: /A

backs up the \DB subdirectory, but
due to the /A option, appends those
files to the last disk in a set of
backup disks. Normally, all files
are destroyed on a backup disk
during backup. The /A option does
not destroy existing files.

Now let us use what we have learned
and backup the harddisk. The first
backup you should do is the complete
harddisk backup (first example).
This backs up the programs and data
you have on your harddisk. As you
utilize the computer during the
week, the /M option can be used to
save time, as only those files
modified since the last backup will
be backed up (BACKUP C:*.* A:
/S/M), though this is not the best
way to backup, since separate sets of
diskettes for each /M backup
operations must be kept as well as a
complete set of the entire disk.

Full system backups are recommended
at least weekly - how often you do
them depends on how much work you
wish to reinput. A backup 2 months
old gives you only 2 months work to
reinput (ARRGH!!!!). The more
backups you do, the safer your
important data will be. A full
to go.

When you do backups, it is wise
to have 3 complete sets of disks for
backup. This allows you to rotate
the set of diskettes used so the
oldest set is used for backup, yet 2
complete sets are retained as well.
This convention is commonly referred
to as 'father, grandfather, great-
grandfather' backups. Also, if your
data is easily found (by
subdirectory or extension), then a
daily backup routine of just data
files can easily be set up. This can
wait until your expertise with the
BACKUP command has grown and you
learn how to do batch files.

I hope this discussion has
helped give a perspective on the DOS
BACKUP command. It is quite useful,
and can save your system in times of
need. Happy Backups!!!!

Editors note: Mark will be writing
a monthly column on DOS for our
Newsletter. Thanks Mark!

A NOTE ABOUT THE DISK LIBRARY

Any registered member is
entitled to make copies of any or
all of the programs in the program
library. The cost is \$1.50 per copy
and you supply your own diskette.
You can get a copy of any program at
the monthly meetings or by
contacting Richard Chambers.

COMMUNICATIONS CORNER
Written by Mike Hayhurst

I would like to remind you all that in the last issue we had a questioner that will help us in finding the best Modem deal for you. If you haven't yet filled one out please do so and let us know what your needs are.

When looking at a Modem, PC, or any part of your personal computer equipment it is a significant investment and would not be easy to replace. For this reason I would like to spend a moment on some cautions we should all take in regards to our investments. Most of us have our PC's at home. This means we should be thinking of the risk involved in having it there. I will just ask some questions and it's hoped that every one will be able to resolve the answers to their own satisfaction.

- 1) Does your home owners insurance cover a PC and it related equipment in case of fire or theft?
- 2) Do you have surge and power protections on all equipment that?
- 3) Do you unplug the phone line to your Modem during a thunder and lightning storm?

There were only three questions but the answers can be very complex depending on the amount of you investment and the probable risk involved. I would however like to talk about the last question for a moment. Most of us have though about the hazards of power spikes and the problems they may cause, but what about you Modem.

Sure you have the power cord plugged into you favorite surge protector. But what about that

phone line? Even as you sleep the phone line is a potential hazard that can destroy this costly item. Since there is no logical buffer between the outside phone lines and the inside phone line of your house a potential hazard exist. Your Modem it is subject to lightning or any other freek accident that might put a power surge on the line.

During a thunder storm it is not uncommon at all for the phone lines to be hit by lightning. We have all heard the phone ring because of this. The threat of lightning is there for any equipment that has micro processors such as TV, Micro Wave ovens, Clocks, and various computer equipment. It is therefore my recommendation that during vacations away from home or time when there is high probability of lightning you should unplug these devices, including the phone line to you Modem or you own electronic phones. It is not a bad idea to keep the phone line unplugged from your Modem until you actually need it. This could save you the cost of a new Modem. Enough of the dark side and on to some lighter subjects.

In the past users of Serial Ports or ASYNC Port have experienced difficulties with cables used to attach Modems, Printers, or other PC's. Each of them have different requirements and it is not always possible to have a universal cable to fit all needs. In general most all such equipment will be defined in what is termed DTE mode.

DTE, data terminal equipment, is a specific assignment of pins and control signals on the RS232-C of the serial port or other device. In this mode the port is normally used

COMMUNICATIONS CORNER (cont...)

with a Modem or used with special cables to control Printers, Plotters, and other computer equipment. Since most equipment is defined as DTE it means the cable used to connect the device must be defined for the specific need. That is to say the cable used to connect to a Modem is not the same as a cable used to connect a plotter to a PC.

First lets define the interface pin assignments and control signals of the RS232-C at the Serial Port:

DTE-MODE at the Serial Port

| | |
|----------|-------------------------|
| PIN (01) | not connected |
| (02) | TXD transmit data |
| (03) | RXD receive data |
| (04) | RTS request to send |
| (05) | CTS clear to send |
| (06) | DSR data set ready |
| (07) | Signal Ground |
| (08) | DCD data carrier detect |
| (09-19) | not connected |
| (20) | DTR data terminal ready |
| (21) | RI ring indicator |
| (22-25) | not connected |

When connecting to a Modem, the cable would be wired so that respective pins on each end of the cable were the same. When connecting a PC and some other equipment such as a plotter, the cable would have pins (02,03) on opposite ends reversed. If the other equipment is an other PC then more pins will should be crossed. In this case pins (02,03); (04,05); and (06,20) should be respectively reversed on the opposite ends. It is very helpful if cables are kept well labeled as to what they are for since the wrong cable will mean it just isn't gone to work.

One quick note on the cable used to connect a Bisync or SDLC adapters to a Modem. In these cases the cable

is a straight pin to pin connection of both end. The only difference is that pin 15, transmit clock, and pin 17, the receive clock have been added.

Cables don't have to be complicated, the simplest is just three wires, one for transmit data, one for receive data, and one for a signal ground. But what ever the need if a problem does arise, just let us know and maybe we can help you out.

The BBS for this month is THE HOUSE OF THE RISING SUN. It is located in the sunny state of Florida and even though it is a long distance from Boise it is worth giving a try.

DATA: (305) 273-0020

Just like most it does require you to register, but that only take a comment to the SYSOP and with in a day or to you are ready to logon. The following files are but a brief list of the gems found there:

| | |
|--------------|-------------------------|
| FMT.LQR | Formats 2 disks at once |
| GCOPY.LBR | Copy multiple files |
| SWEEP.EXE | File manipulation util. |
| SWEEP.DOC | Documentation for SWEEP |
| 3-DEMON.EXE | 3-D Packman C/G req. |
| 3-DEMON.DOC | 3-D Packman doc. |
| MONOPOLY.EXE | C/G Req. Against PC |
| MONOPOLY.PIC | Req. for MONOPOLY.EXE |
| MONOPOLY.BAS | Up to 10 against others |
| NOVATRON.EXE | A light cycle game. |
| TREKRUN.EXE | Snuff those Klingons |
| TREKPIK.EXE | Needed for TREKRUN.EXE |
| DATA.DAT | Needed for TREKRUN.EXE |

This board has even files for COMMODORE, ATARI, TRS80, and APPLE. Give it a call its has much more to offer.

That all for now, but we all hope to see you out to our next meeting.

COMPAQ 286 ANNOUNCED
Written by Mark McNee
Computerland

Just recently, COMPAQ has announced two new products to add to it's line of IBM compatible microcomputers. These products are the COMPAQ DESKPRO 286 and the COMPAQ PORTABLE 286. These microcomputers are based on the Intel 80286 processor running at 8 MHZ (primary speed), or 6 MHZ (secondary speed). This provides an approximately 30% speed advantage over the 6 MHZ IBM AT, as well as the ability to toggle to the slower 6 MHZ clock for applications that require it. Please note that the 80286 processor provides a 24 bit data path (hence the increased speed over the 8088 and 8086 processors) as well as other advanced features that allow up to 16 MB of RAM to be addressed, and protection in hardware for software running in multiuser or multitasking environments (protected mode).

The COMPAQ DESKPRO 286 can hold up to four storage devices (all half height). This includes the standard 1.2 MB floppy disk drive, as well as optional devices including 30 or 70 MB hard-disks (both are full height), a half height tape backup, and 360K disk drive. The system board, using 256K chips, can hold up to 2176 KB, and up to three 2048 KB memory boards can be added (total 8320 KB). Standard interfaces that come with both the DESKPRO 286 and PORTABLE 286 are: parallel printer, 9-pin asynchronous communications, RGB color monitor, composite video monitor, RF modulator, and light pen. The DESKPRO 286 supports the dual mode amber or green monitors of the DESKPRO line, and IBM compatible RGB monitors.

cont..

The COMPAQ PORTABLE 286 has all the standard interfaces as described above. The PORTABLE 286 also has the built in monitor like it's 8088 predecessor. The system board of the PORTABLE can accept up to 640K and the PORTABLE 286 can support one 2048K memory board for a total of 2688K. The PORTABLE 286 can hold up to 3 storage devices. One storage device is the standard 1.2 MB diskette drive, whereas the others may be the full height 20 MB harddisk, a 10 MB tape backup, a 360K disk drive or another 1.2 MB disk drive. The keyboard is patterned after the IBM AT, with the enlarged enter and shift keys, and LED lights for CAPS, NUMLOCK, SCROLL LOCK.

These new computers are expected in the store (Computerland) sometime this month, so come on in to see the new stuff!!

HOW TO SUBMIT AN ARTICLE

If you would like to contribute to our newsletter on a regular or occasional basis, please contact us. When submitting an article, please put it on a floppy diskette with your name printed on it. The diskette will be returned at the following meeting. You may also submit an article by stopping by Bob Robles's house no later than the end of the month prior to publication. The ideal format to submit them in is with Wordstar, single column, formatted to 36 columns wide, with return codes at the end of a paragraph only and no hyphenation. Although we will accept articles written with any word processor, the above format will be greatly appreciated.